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ABSTRACT OF THE DISCLOSURE

A semiconductor testing apparatus includes a test program memory for storing a test program, a measuring/deciding section for receiving the test program and supplying a test signal to the semiconductor device with a wait time set to a predetermined value and detecting an optimal value of a wait time, after an elapse of the wait time, based on a response signal outputted from the semiconductor device and effecting an OK/NG decision on the electrical characteristics of the semiconductor device based on a result of the measurement and, if the result of the decision is found to be "NG", remeasuring the electrical characteristics of the semiconductor device under a newly set wait time and effecting such remeasurement on the electrical characteristics of the semiconductor device at each newly set wait time until the result of such decision becomes "OK".